an output terminal, supplying a regulated voltage; and

a first boost circuit, which is controlled for alternately accumulating a first charge in a first operating condition and supplying said first charge to said output terminal in a second operating condition; wherein said first boost circuit comprises a compensation stage feeding said output terminal with a second charge substantially equal to said first charge when said first boost circuit is in said first operating condition.

- 19. The device according to claim 18, further comprising control unit connected to said voltage regulator to control said first boost circuit in said first operating condition when said load circuit is disconnected from said voltage regulator and in said second operating condition when said load circuit is connected to said voltage regulator.
- 20. The device according to claim 18 or 19 wherein said load circuit is a non-volatile memory array and said regulated voltage is a read/write voltage.
- 21. A method for regulating a voltage on a terminal selectively connected to a load, comprising the steps of:

accumulating a first charge, when said terminal is disconnected from said load; and

injecting said first charge into said terminal, when said terminal is connected to said load;

wherein said step of accumulating comprises supplying said terminal with a second charge equal to said first charge.

22. The method according to claim 21 wherein said step of accumulating comprises absorbing a first current from said terminal.

an output terminal, supplying a regulated voltage; and

a first boost circuit, which is controlled for alternately accumulating a first charge in a first operating condition and supplying said first charge to said output terminal in a second operating condition; wherein said first boost circuit comprises a compensation stage feeding said output terminal with a second charge substantially equal to said first charge when said first boost circuit is in said first operating condition 19. The device according to claim 18, further comprising control unit connected to said voltage regulator to control said first boost circuit in said first operating condition when said load circuit is disconnected from said voltage regulator and in said second operating condition when said load circuit is connected to said voltage regulator.

- 20. The device according to claim 18 or 19 wherein said load circuit is a non-volatile memory array and said regulated voltage is a read/write voltage.
- 21. A method for regulating a voltage on a terminal selectively connected to a load, comprising the steps of:

accumulating a first charge, when said terminal is disconnected from said load; and

injecting said first charge into said terminal, when said terminal is connected to said load;

wherein said step of accumulating comprises supplying said terminal with a second charge equal to said first charge.

22. The method according to claim 21 wherein said step of accumulating comprises absorbing a first current from said terminal.